

An Easy On-Ramp to the Cloud for SMB

Offsite backup for on-premises storage for smaller IT environments using a virtual appliance with Drobo and AWS Storage Gateway

Customer Challenge

Any company that is large enough to have IT infrastructure needs the applications delivered from that infrastructure to be always available, even after a disaster. This is a fact of today's always-on culture. Business needs support from technology, and most companies cannot operate without their applications. Smaller organizations, though, are less likely to have a second site where they can host IT infrastructure. What happens if there is a catastrophe or failure that takes down IT? Without a second site, small businesses are at risk.

Local backup provides strong protection from the most common outages caused by device failure or human error. But local backup cannot help business recover from a disaster without offsite backup. Small shops have updated their data

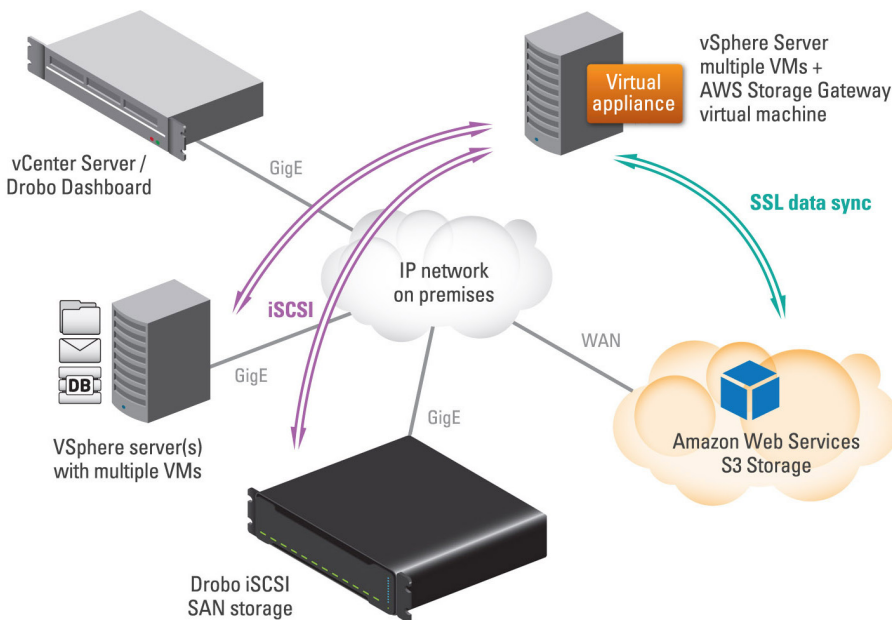
protection onsite using disk-based backup, but replacing tape for offsite backup can be costly and complex. Cloud backup is the latest trend, but until recently it has not been a realistic strategy for small organizations. Organizations of all sizes now want to recover applications from the cloud in the event of a disaster.

The Solution

Drobo® is the choice for the on-premises storage component of the architecture. For ease of integration, a virtual appliance solution can be used to sync to the cloud for offsite backup. A virtual appliance is a simple virtual machine (VM) added to the existing infrastructure. It maintains the on-premises architecture while enabling an "on-ramp" to the cloud for selected data. Amazon, the most popular cloud storage service in the world,

offers Amazon AWS Storage Gateway, which delivers offsite backup for local Drobo storage to Amazon Simple Storage Service (S3).

Another option is to use other Amazon web services with Amazon S3. Amazon provides Route 53 service, which enables updating of DNS so that users are pointed to the instance running in the cloud. It is also possible to create an Amazon Elastic Block Store (EBS) instance from an S3 backup, mount it with an Amazon EC2 instance, and restart the application completely from the cloud. In addition to the benefits of the recovery itself, recovery in the cloud enables disaster recovery testing.



Highlights

- Simple and reliable protection for on-premises storage
- Hybrid-cloud solution that leverages a virtual appliance for automatic offsite backup
- Point-in-time snapshots of local data seamlessly replicated to the Amazon S3 cloud
- Restore data from the cloud to your site or any other location
- Restart applications entirely in the cloud by mounting a snapshot with EC2
- Use for testing in or migrating applications to the cloud
- An easy on-ramp to the cloud for smaller organizations



Drobo Solution Summary

What You Will Need

Comparing alternatives for offsite backup, both tape backup and maintaining a second site for replication are more costly and complex than automatic backup to cloud. Leveraging AWS Storage Gateway with Drobo offers superior ease end to end while providing similar protection for offsite backup.

Offsite Backup	Using Amazon S3	Offsite Tape Vaulting	Replication to 2nd Location
Recovery Point (RPO)	Based on last sync	Based on last backup taken offsite	Asynchronous, as low as 15 min
Recovery Time (RTO)	Restore time needed to any location	Slow recovery of tapes and restore	As little as 30 min
Up-front cost	None with virtual appliance	Cost of library @ sourcing vault location	\$\$\$\$\$ – \$\$\$\$\$\$ to outfit 2nd site
Monthly cost	~\$200/month for 500GB, < \$1,000/month protecting 6.5TB of storage	\$300->\$1000 + tape drive cost	\$\$, \$\$\$, network at 2nd site, plus site costs

Where Drobo is Different

Protecting data is important, but cost and complexity prevent small companies and departments from doing offsite backup. Even the lowest-cost iSCSI storage and entry licensing for storage replication are both expensive by most measures, and not possible without a second location for IT. Onsite backup alone cannot provide rapid failover or disaster recovery, but using Drobo for onsite backup and leveraging AWS Storage Gateway to back up to Amazon S3 can now be done affordably.

Drobo provides superior data protection with BeyondRAID™ technology in a solution that is very affordable, making it ideal for on-premises data backup. You do not need to buy expensive storage with built-in replication for disk backup—it is less complex and costly to use server-based functions for data movement such as AWS Storage Gateway is an example of such. The simple addition of a VM into the existing infrastructure is all that is needed to connect to Amazon S3.

More Information

Solution materials, including a detailed how-to guide and the webcast replay with an expert guest @ www.drobo.com/aws

Want to talk about it? Live experts from Drobo @ www.drobo.com/live

Ready to buy it? Ask your preferred reseller, or visit www.drobo.com/where-to-buy/index.php

How To Build It

To implement offsite backup for select data on a Drobo:

1. Install Drobo Dashboard on management server (can be on management server or a VM).
2. Deploy SAN storage device, easy automatic setup with Drobo, configure smart volumes.
3. Download and deploy the .ova AWS Storage Gateway VM.
 - AWS recommends using thick provisioning when installing.
4. Sync time between the AWS Gateway VM with the host on which it is provisioned.
5. Allocate Drobo storage to AWS for storing application data and for working buffer storage.
6. Activate the gateway to associate with Amazon account.
7. Create and mount volumes, snapshots taken based on schedule.
8. Test snapshots and execute recovery plans, you now have offsite backup!

NOTE: Must use VMware paravirtualized SCSI controller

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SU-0106-00 • March 2012